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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,867	10/17/2003	Francesco Stellacci	P-8698-US	9441
49443 7590 10/28/2008 Pearl Cohen Zedek Latzer, LLP 1500 Broadway 12th Floor New York, NY 10036				
EXAMINER YANG, NELSON C				
ART UNIT		PAPER NUMBER		
1641				
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10/28/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/688,867

Applicant(s)

STELLACCI ET AL.

Examiner

Nelson Yang

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 111, 112, 145, 146, 177-180, 182, 183, 215 and 216 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 40, 49, 50, 52, 57, 58, 97, 106, 107 and 109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are
1,2,40,49,50,52,57,58,97,106,107,109,111,112,145,146,177-180,182,183,215 and 216.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment of claims 40, 57, 106 is acknowledged and has been entered.
2. Claims 1, 2, 40, 49, 50, 52, 57, 58, 97, 106-107, 109 are currently under examination.
3. Claims 111-112, 145-146, 177-180, 182-183, 215-216 are withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 49, 50, 52, 57, 58, 106, 107, 109 are rejected under 35 U.S.C. 102(a) and 35 U.S.C. 102(e) as being anticipated by Guire et al. [US 6,514,768].

With respect to claim 1, Guire et al. teach providing a master array having a support surface, immobilizing a plurality of oligonucleotides on the master array support surface to form a pattern of oligonucleotides, hybridizing multi-ligand conjugates with the oligonucleotides on the master array support surface, providing an assay array support surface, and disassociating the first binding domains from the master array support that permits the conjugates to remain upon the assay support surface (column 17, line 40 – column 18, line 25).

6. With respect to claim 2, Guire et al. teach that the multi-ligand conjugates contain a plurality of active domains (exposed functionality) (column 13, lines 22-28).
7. With respect to claim 49, Guire et al. teach an embodiment where portions of the second substrate are free of the multi-ligand components (see fig. 1A).
8. With respect to claims 50, 52, Guire et al. teach that the assay arrays may then be used as master arrays to form corresponding assays arrays by the same process (column 18, lines 55-63). Guire et al. teach passivating the surface of the assay array prior to and/or after exposure to the binding partner, such as with a surfactant (column 17, lines 1-5) or using wet chemical etching procedures to etch the substrate (column 21, lines 70-11). Guire et al. further teach washing excess conjugates from the surface of the substrate (column 21, lines 30-35), which would uncover portions of the substrate that are not part of the pattern.
9. With respect to claim 57, Guire et al. teach providing a master array having a support surface, immobilizing a plurality of oligonucleotides on the master array support surface to form a pattern of oligonucleotides, hybridizing multi-ligand conjugates with the oligonucleotides on the master array support surface, providing an assay array support surface, and disassociating the first binding domains from the master array support that permits the conjugates to remain upon the assay support surface (column 17, line 40 – column 18, line 25). Guire et al. further teach that the multi-ligand conjugates contain a plurality of active domains (exposed functionality) (column 13, lines 22-28). Guire et al. teach that the assay arrays may then be used as master arrays to form corresponding assays arrays by the same process (column 18, lines 55-63).
10. With respect to claim 58, Guire et al. teach that the multi-ligand conjugates contain a plurality of active domains (exposed functionality) (column 13, lines 22-28).

11. With respect to claim 106, Guire et al. teach an embodiment where portions of the second substrate are free of the multi-ligand components (see fig. 1A). Therefore, since the pattern on the third substrate is formed by the same process as the second, portions of the third substrate would also be free of molecules.

12. With respect to claims 107, 109, Guire et al. teach that the assay arrays may then be used as master arrays to form corresponding assays arrays by the same process (column 18, lines 55-63). Guire et al. teach passivating the surface of the assay array prior to and/or after exposure to the binding partner, such as with a surfactant (column 17, lines 1-5) or using wet chemical etching procedures to etch the substrate (column 21, lines 70-11). Guire et al. further teach washing excess conjugates from the surface of the substrate (column 21, lines 30-35), which would uncover portions of the substrate that are not part of the pattern.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 40 and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guire et al. [US 6,514,768] in view of Aksay et al. [US 2001/0023024].

With respect to claims 40, 97, Guire et al. teach providing a master array having a support surface that may be metal (column 7, lines 53-58) to form a pattern (column 3, lines 60-65), immobilizing a plurality of oligonucleotides on the master array support surface, hybridizing

multi-ligand conjugates with the oligonucleotides on the master array support surface, providing an assay array support surface, and disassociating the first binding domains from the master array support that permits the conjugates to remain upon the assay support surface (column 17, line 40 – column 18, line 25). Guire et al. fail to teach that the patterning is performed using electron beam lithography on a metal surface.

Aksay et al. teach using electron beam lithography to form patterns on arrays (para. 0080) and further teach that this allow for thinner structures to be formed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used electron beam lithography to form the patterns in the master array of Guire et al., as suggested by Aksay et al., in order to form small patterns, thus decreasing the size of the array formed.

Response to Arguments

15. Applicant's arguments filed July 16, 2008 have been fully considered but they are not persuasive.

16. With respect to applicants argument that the prior art contains method steps that are not taught in the instant claims, it is noted that method recited in the claims utilizes open language (i.e., “comprising”) and therefore would not preclude additional steps from being performed. Since the method taught by Guire et al. recite all the steps and limitation recited in the claims, even though Guire recites additional limitations, the method taught by Guire et al. would read upon the broader genus recited in the claims.

With respect to applicant's arguments with respect to the rejection of claims 40 and 97 under 35 U.S.C. 103(a) as being unpatentable over Guire et al. [US 6,514,768] in view of Aksay et al. [US 2001/0023024], specifically that the prior art does not describe a nano-contact printing method using a simple two-component molecule and unmodified printing substrate, it is noted that this limitation is not recited in the claim. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a nano-contact printing method, two-component molecule, or unmodified printing substrate) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In fact it would appear the substrate recited in claims 40 and 97 is modified with a pattern of metal, metal oxide, or combinations thereof. Therefore, applicant's argument is not found persuasive.

However, the rejections were incorrectly rejected under under 35 U.S.C. 102(b) instead of under 35 U.S.C. 102(a) and under 35 U.S.C. 102(e). Therefore, the office action has not been made final.

Conclusion

17. No claims are allowed.
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson Yang whose telephone number is (571)272-0826. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nelson Yang/
Patent Examiner, Art Unit 1641